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New Hesperioidea, with Notes on Some Others from the United States (Lepidoptera, Rhopalocera).

By H. A. FREEMAN, White Deer, Texas

Thorybes pylades albosuffusa new form

This new form differs from typical *pylades* (Scudder) in the following particulars: on the under surface of the secondaries there is a prominent submarginal suffusion of greyish-white scales. In *pylades* this is not present or else is very faintly indicated. The fringe of the secondaries is lighter than that of *pylades* caused by the presence of some white scales. The palpi beneath are grey and not concolorous with the under surface of the body. In *pylades* the palpi are concolorous with the under surface of the body.

Described from 5 specimens, 2 males and 3 females, collected by Mrs. H. A. Freeman and the author at Ft. Davis (type locality) and Alpine, TEXAS, during June of 1940 and 1942.

Holotype male and *allotype* female are in the collection of the author. *Paratypes*, 1 male and 2 females, will be disposed as follows: 1 male to the United States National Museum; and 1 female to the Academy of Natural Sciences, Philadelphia. The other female paratype will remain for the present in the collection of the author.

Although it is not always advisable to name forms of most species of butterflies, occasionally one appears that causes difficulty in correctly determining the species. The writer believes

this to be the case in the above described form as some of the specimens somewhat resemble *drusius* (Edwards). However, *albosuffusa* is a much browner insect than *drusius* and the fringes are not nearly so white.

ERYNNIS PERSIUS (Scudder)

Typical *persius* can readily be determined in the north central and eastern states by the abundant hair on the base and disc of the primaries and the general smooth appearance. Dr. W. T. M. Forbes figures the genitalia of this species in "The *Persius* Group of *Thanaos*," *Psyche*, vol. 43, pp. 104-113, December, 1936. The tip of the lower lobe of the left valve is without teeth or else there is the slightest indication of a roughened surface.

The range of *persius* consists of southeastern Canada, the New England states to Florida, westward to Arkansas, and northward through Kansas to Nebraska and Minnesota.

ERYNNIS PERSIUS PERNIGRA (Grinnell)

This is the high mountain subspecies that occurs in California and Utah. It can be recognized by the uniform, blackish-slate coloration of both wings above. There are very few grey hairs on the primaries.

Genitally *pernigra* differs from *persius* only in the presence of several teeth on the tip of the lower lobe of the left valve.

ERYNNIS PERSIUS AVINOFFI (Holland)

There has been some question as to the exact status of *avinoffi* for sometime. With this in mind the writer wrote Mr. W. R. Sweadner of the Carnegie Museum, Pittsburgh, Pennsylvania to see if it would be possible to borrow a paratype so as to make a slide of the genitalia. Mr. Sweadner kindly sent one male paratype and another male from the type series for that purpose. The genitalia revealed that *avinoffi* is a subspecies of *persius* and like *pernigra* it differs only in the presence of some teeth on the tip of the lower lobe of the left valve.

In general appearance *avinoffi* differs from typical *persius* in the following ways: the fringe of the secondaries is somewhat lighter. The hair of the primaries is not so thick nor as long. As a whole, most examples are slightly smaller.

Avinoffi is the arctic subspecies of *persius* as it occurs in northern Canada and Alaska.

***Erynnis persius fredericki* new subspecies**

This new subspecies differs from typical *persius* (Scudder) and its two other subspecies in the following particulars: the hair on both the primaries and secondaries is longer and thicker. There are more grey scales and hairs present on the primaries. The dark sagittate markings are very black, thus producing a greater contrast in the light and dark areas. The fringe of the secondaries is lighter than in *persius* and some of the specimens have the outer half clear white. *E. p. fredericki* can readily be identified by the shaggy appearance of the primaries and the lighter fringe of the secondaries.

Genitally *fredericki* differs from *persius* in the following ways: there are two to four teeth on the tip of the lower lobe of the left valve. There is a tendency for the lower lobe of the right valve to turn downward and the ventral surface of the right valve is very uneven, a tendency not noticed in most specimens of *persius*. The lower lobe of the right valve is also shorter than in *persius*.

Expanse: males 26–33 mm., average size 30 mm.; females 26–35 mm., average size 32 mm.

Described from 60 specimens, 44 males and 16 females. 29 males and 8 females were collected by V. H. & A. C. Frederick near Lead, Spearfish Canyon (type locality), Icebox Canyon and Terry Peak, all in SOUTH DAKOTA, during June of 1939 and 1942; 13 males and 2 females were collected by H. A. Howland at Polaris, Montana; 1 male and 5 females were collected by Dr. J. R. Turner at Beulah and Wolf Creek Pass, Colorado during June of 1942; 1 male from Lake Tahoe, Placer County, California, June 12, 1939 and 1 female Kings River, Fresno, California, September 30, 1941.

The writer takes great pleasure in naming this new subspecies for Mr. A. C. Frederick of Albany, New York, who, along with his wife, collected most of the specimens.

Holotype male and *allotype* female are in the collection of the author. Three male and 6 female *paratypes* are in the collection of Stallings and Turner, Caldwell, Kansas. Forty-nine *para-*

types will be disposed as follows: 14 males and 2 females to the collection of Mr. A. C. Frederick, Albany, New York; 2 males and 1 female to the American Museum of Natural History, New York; 2 males to the United States National Museum; 2 males to the Academy of Natural Sciences of Philadelphia; 2 males to the collection of Mr. Lowell Hulbirt, Glendora, California; and one pair to the collection of Mr. Otto Buchholz, Roselle Park, New Jersey. The other 22 paratypes will remain for the present in the collection of the author.

AMBLYSCIRTES SIMIUS Edwards

Edwards described this butterfly as *Amblyscirtes simius* in 1881.¹ Since that time it has been placed in the genus *Chae-rephon* Godman & Salvin by Dr. A. W. Lindsey and in Mr. E. L. Bell's "The Hesperioidea," Bulletin of the Cheyenne Mountain Museum, vol. 1 (part 1) October 4, 1938, it was listed under the genus *Yvretta* Hemming along with *rhesus* (Edwards) and *carus* (Edwards). Mr. Edwards was correct when he described this species in the genus *Amblyscirtes*. The writer has examined five male and one female collected by Stallings and Turner, of Caldwell, Kansas, in the Palo Duro Canyon of Texas during May and June, 1942 and thirty-five males and four females collected by the writer at the same locality during May, 1942. *Simius* differs from members of the genus *Yvretta* in the following particulars: the third joint of the palpus is long and slender, whereas that structure in *rhesus*, *carus*, and *citrus* (Mabille) (a Mexican species) is short and rather stout. The antennal club in *simius* has a short reflexed apiculus. This is not present in any of the *Yvretta*. The reflexed apiculus is a characteristic of the genus *Amblyscirtes*. The long, slender third joint of the palpus and the manner with which it is upturned likewise associate this species with other members of the genus *Amblyscirtes*. The middle tibiae are spined.

Skinner and Williams in their study "On the Male Genitalia of the Hesperioidea of North America, Paper 111,"² state

¹ Trans. Amer. Ent. Soc., IX, p. 6.

² Trans. Amer. Ent. Soc., XLIX, 129-153, July 30, 1923.

on page 138 that the male has no stigma. Possibly this is a misprint or else an error because the males of *simius* do have a short, black stigma that is readily discernible.

Genitally this species is not like other members of the genus *Amblyscirtes*, however, the main characters are certainly nearer that genus than they are to members of the genus *Yvretta*.

Superficially on the under surface this species shows a decided relationship with *oslari* (Skinner) in the arrangement of spots on both the primaries and secondaries. In habits the two are very similar. The writer has collected both species at the same time and place as they rested on light colored soil and rocks. It was difficult to tell the two apart when they had their wings folded vertically above their bodies.

From the above information the writer is returning this species to the genus *Amblyscirtes* where it was first placed.

Megathymus yuccae alabamae new subspecies

This new subspecies resembles the subspecies *navajo* Skinner more than it does typical *yuccae* (Bdv. & LeC.). Typical *yuccae* from Florida and Georgia is deep umber-brown with the spots, base of primaries and marginal border of the secondaries decidedly yellow. On the under surface of the secondaries of *yuccae* there is usually a single crescent like spot near the costa. *Navajo* is the subspecies that occurs in New Mexico, Arizona and California and is characterized by the black coloration of the wings, the spots of the primaries and on the secondaries of the females are white or very light yellow and the marginal border is rather broad and is grey. *Navajo* is also characterized by the presence of two white spots near the costa on the under surface of the secondaries, one is crescent shaped and the other more or less oval.

Alabama differs from *yuccae* in the following particulars: the wings are black. All the spots on the primaries except the subapical ones are light yellow. The base of the primaries shows a very few yellow scales and hairs and the marginal border of the secondaries is light yellow with some grey scales intermixed.

Alabama differs from *navajo* in the following particulars: the spots on the primaries are a little larger and somewhat yellower. The marginal border of the secondaries is more yellowish and there is a single crescent shaped spot near the costa on the under surface of the secondaries.

Expanse: Holotype male 56 mm., paratype male, 50 mm.

Described from two males, received from Mr. A. C. Frederick, Albany, New York, and collected by Mr. M. E. Smith at Anniston, ALABAMA on April 12, 1937.

Holotype male and male *paratype* are in the collection of the author.

The editor of the Entomologist's Record and Journal of Variation, in his December, 1942 number, calls attention "to the loose way that the word 'type' is so frequently used of late . . . A large number of insects lie before me which bear the label 'type.' Not a single one of them is a 'type.' They are, in the opinion of the collector, specimens like the type, i.e. typical examples of the species and not the 'original specimen' or 'illustration' upon which the specific name was bestowed."

Adult and Immature Stages of *Cricotopus elegans* n. sp. (Chironomidae, Diptera).

By O. A. JOHANNSEN, Ithaca, N. Y.

Specimens of an undescribed species of *Cricotopus*, the larvae of which were found mining in the leaves of *Potamogeton*, were sent to me for determination by Mr. C. O. Berg of Ann Arbor, Michigan. The species most closely resembles *Cricotopus infuscatus* (*Trichocladus infuscatus* Malloch) and *C. politus* (*Orthocladus politus* Coq.) as well as the European *C. obnixus* (Walk.), differing from them in the deeper color of the abdomen and in leg or male antennal ratio, or in the structure of the terminalia of the male. The larva will find a place in my key (Aquatic Diptera, III, page 59) tracing to *Spaniotoma*, second paragraph of couplet 20, differing from the species in couplet 21